



INTRODUCTION

to the

UNIVERSITY OF CALIFORNIA

at BERKELEY

SPACE SCIENCES LABORATORY

SPACE SCIENCES LABORATORY



Background

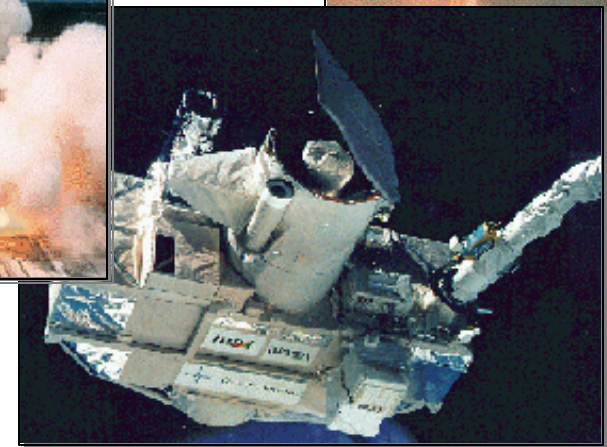
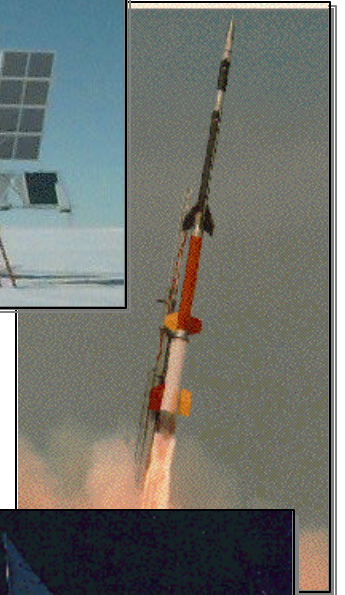
- Initiated in 1958 by Drs. Teller and Seaborg
- Multidisciplinary organization
- Connecting campus research to space efforts
- Facility opened in 1966
- New facilities added in 1998

Research Efforts Involving

- Balloons
- Sounding rockets
- Satellite Instruments & Science Complements
- Complete Satellites
- Mission and Science Operations
- Ground Station Operations

Agencies Involved

- NASA, NSF, USAF, DOE
- ESA, ISAS, IKI, PSI, etc

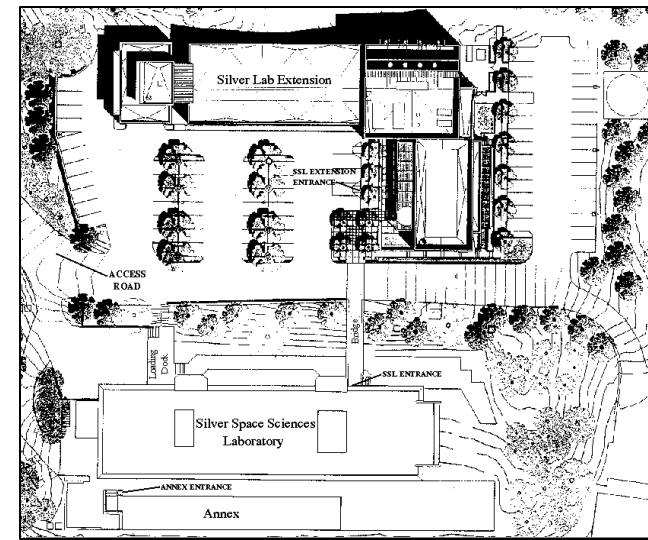


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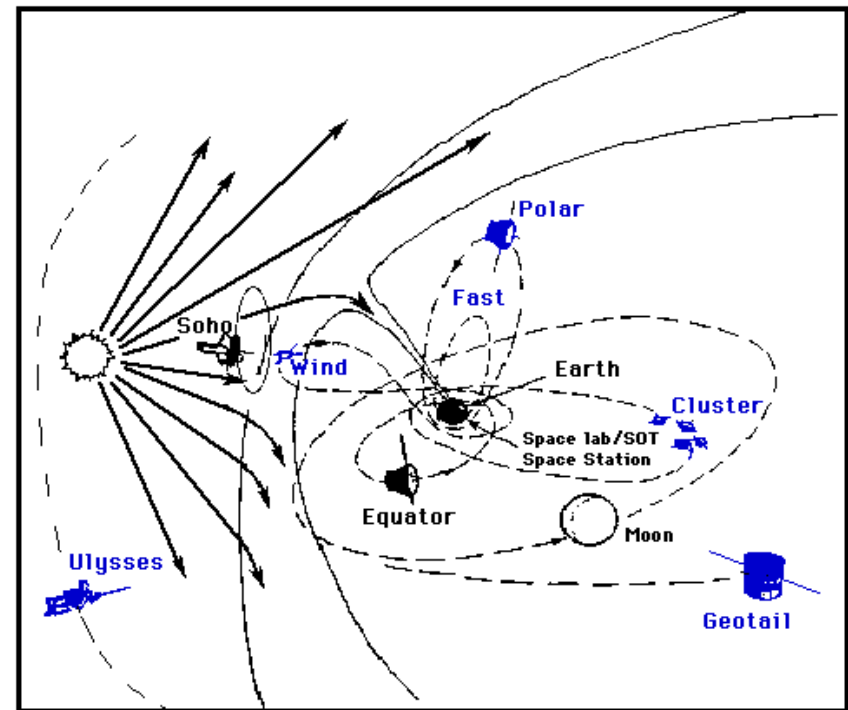
Facilities

- 55000 sq. ft. Office and Laboratory Space
- Employing 420 Scientists, Engineers, Staff
- On-Site Machine Shop
- Clean Room Facilities to Class 100
- Thermal Vacuum Facilities up to 3m diameter
- Spacecraft Integration Facility
- 4-story High Bay
- Radiation Sources Laboratory
- Mission Operations Centers
- Science Operations Centers
- 11 Meter S-Band Satellite Antenna
- Secure High Speed Communications to NASA



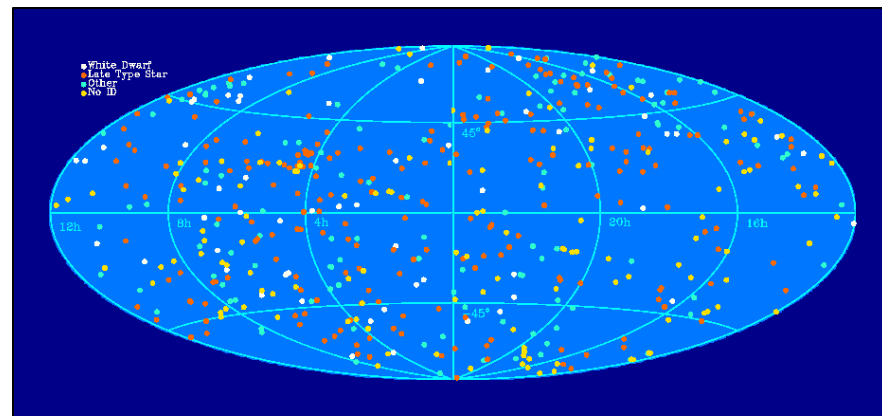
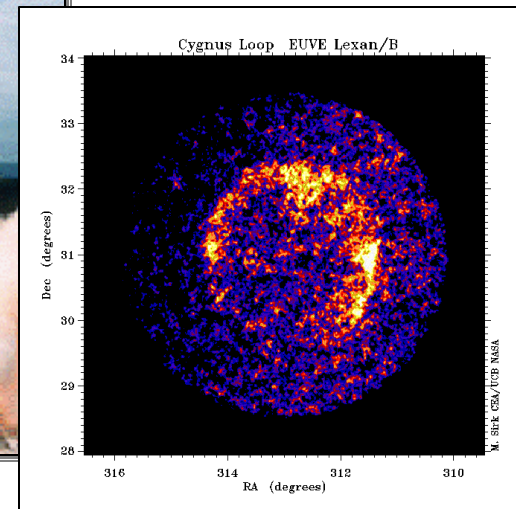
FLIGHT INSTRUMENTS (Recent)

- CRRES LP
- Polar EFI
- Wind 3DP
- Cluster I EFW, CIS
- Cluster II EFW, CIS
- Image FUV, WIC
- Mars Observer ER
- Mars Global Surveyor ER
- Ulysses LAN
- Lunar Prospector ER
- FUSE
- SOHO UVCS & SUMER
- GALEX
- COS - Hubble Space Telescope
- ISUAL
- CHIPS



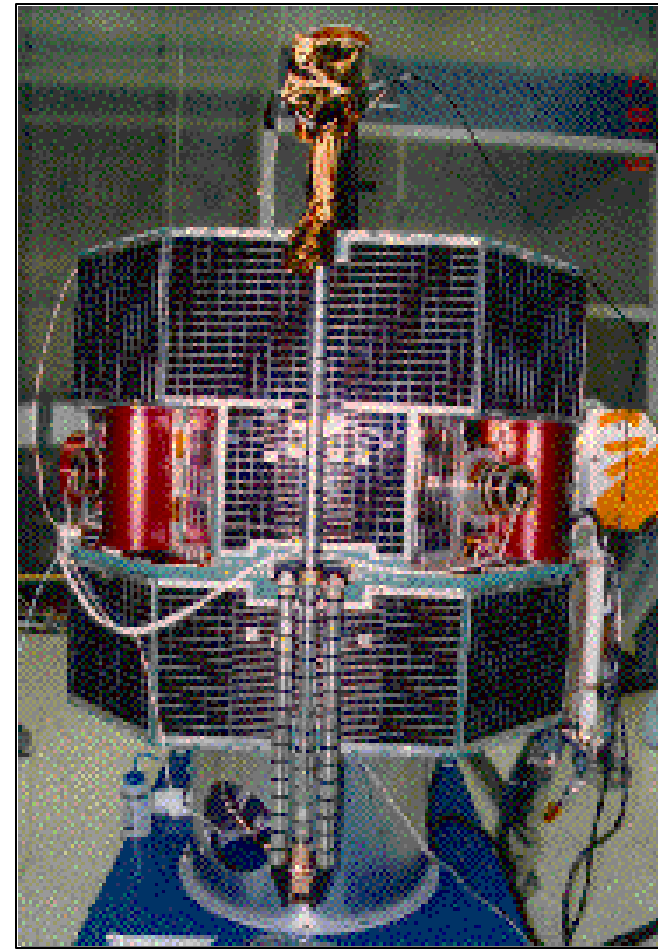
Extreme Ultra Violet Explorer (EUVE)

- Project Management
- Science Package
 - Telescopes
 - Electronics
- Mission Operations
- Science Operations



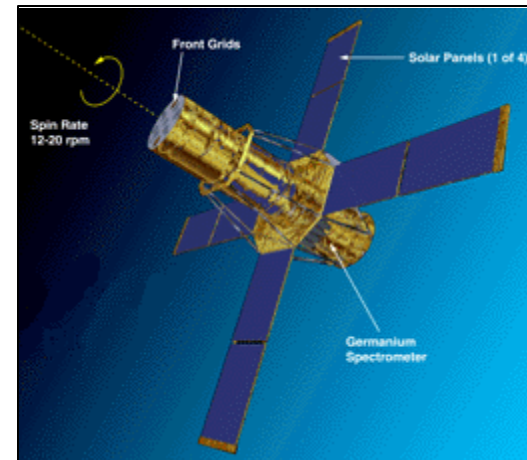
Fast Auroral Snapshot (FAST)

- **Science Package**
 - Electric Field Instruments
 - Particle Instruments
 - Electronics
- **Mission Operations**
- **Science Operations**



High Energy Solar Spectroscopic Imager (HESSI)

- Project Management
- Spacecraft Bus
- Science Package
 - Imager
 - Spectrometer
 - Electronics
- Mission Operations
- Science Operations
- Ground Data Systems
- Ground Based Observations



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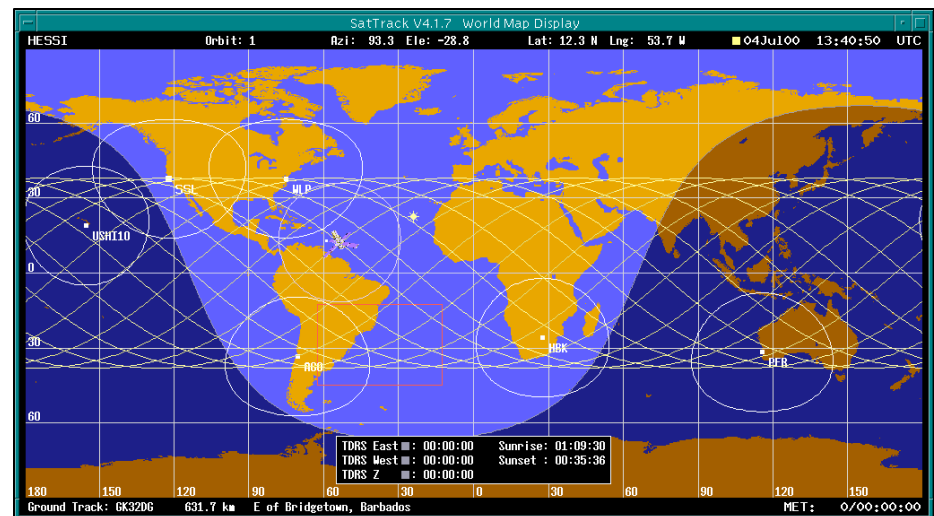


Operations Components

- Mission Operations Centers
- Science Operations Centers
- 11-meter S-Band Antenna with X-band capability
- High Speed Communications to NASA Ground Network
- Network Security
- Autonomous Operations
- Pass Supports
- Orbit Determination & Tracking
- Emergency Response System



Self Checking



Space Sciences Laboratory Contributions



Facilities

- **Mission Operations Center**
- **Science Operations Center**
- **11 Meter Satellite Antenna**
- **High Bay (I&T)**
- **Clean Room Facilities**
- **Thermal Vacuum Test Chamber**
- **Space Instrument Fabrication Facilities**